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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,961	10/15/2003	Myung-Gyu Lee	5387-009	8825

20575 7590 11/28/2005

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EXAMINER

BARRY, CHESTER T

ART UNIT	PAPER NUMBER
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1724

DATE MAILED: 11/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/686,961

Applicant(s)

LEE, MYUNG-GYU

Examiner

Chester T. Barry

Art Unit

1724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 7-10, 16 and 17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 11-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/15/03.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

The election of the invention of claims 1 – 6, 11 – 15 without traverse is acknowledged.

Claims 1 – 6, 11-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "slurry type organic waste" in claim 1 is a relative term which renders the claim indefinite. A "slurry organic waste" is definite, but the term "slurry type" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Presumably, a "slurry type" organic waste is an organic waste that includes not only organic waste in the form of a slurry, but also organic waste that is not a slurry, but similar to a slurry in some undisclosed manner or property. It is this failure to describe what feature or property non-slurry has in common with a true slurry that renders the expression "slurry type organic waste" indefinite.

Per claims 4, 12 and 13, claim 1 fails to provide antecedent basis for the phrase, "the water."

Per claims 5 and 6, claim 1 fails to provide antecedent basis for the phrase, "the microbe proliferation-inhibiting means."

Per claim 14, claim 2 fails to provide antecedent basis for the phrase, "the microbe proliferation-inhibiting means."

Correction is required.

Claims 1 – 6, 11-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. There does not appear to be an art-recognized temperature range at which “thermophilic” fermentation processes take place. Applicants have not specified a thermophilic temperature range. It is not reasonably clear, therefore, at what temperature an aerobic fermentation process must take place in order to meet the claim 1 limitation of the fermentation being a “thermophilic” fermentation. USP 4467035 to Harasawa describes an aerobic fermentation of various phototrophic bacteria at temperatures as high as 40 degrees C. It is unclear whether these aerobic fermentations are “thermophilic.”

Claims 1 – 6, 11 – 15 include the limitation “aerating the aerobic thermophilic digestion bacteria” as recited in claim 1. There is insufficient antecedent basis for the phrase, “the aerobic thermophilic digestion bacteria.” The basis for rejection may be overcome by deleting the word “the” from that phrase appearing at claim 1 line 3.

Objection is made to claims 1 – 6, 11 – 15 for misspelling “phototrophic” as “photo-tropic.” Correction throughout the claims is required.

Objection is made to the specification for misspelling “phototrophic” as “photo-tropic.” Correction throughout the specification is required.

USP 6203701 is cited of interest.

USP 5,492,624 describes autothermal thermophilic aerobic digestion of an organic waste slurry at 40 – 70 degrees C followed by pH adjustment to pH 3.5. Addition of phototrophic bacteria is not taught or suggested.

Claims 1 – 2 are rejected under 35 USC Sec. 102(b) as anticipated by JP 11-300327.

JP 11 – 300327 (published 4/24/98) describes a method for treating a slurry type organic waste (“kitchen garbage”). The method comprises adding aerobic thermophilic digestion bacteria (“thermophilic bacteria” of paragraph [0018]) into a closed treatment tank. The tank accommodates the organic wastes slurry. The method includes aerating the treatment tank (blower 31). Proliferation of the aerobic thermophilic digestion bacteria is thereby promoted. The method includes treating the organic wastes slurry with a thermophilic fermentation and adding phototrophic bacteria ([0011]). Conversion of the slurry stype waste stream to a processed liquid product results.

The recitation in claim 1, “to produce a liquid fertilizer” is a statement of mere intended use. It does not require that the resulting processed liquid be applied to soil used for raising crops or the like.

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Per claim 2, nutrients for the bacteria are added to the tank along with the slurry type kitchen garbage.

Claims 1 – 2, 4 are rejected under 35 USC Sec. 102(b) as anticipated by JP 11-169893.

JP 11-169893 describes a method for treating a slurry type organic waste (sludge). See Fig. 5. The method comprises adding aerobic (air line 34) thermophilic digestion bacteria (English abstract) into a closed (lid 37) treatment tank (Fig. 5). The tank accommodates an organic wastes slurry. Aeration of the treatment tank is effecting using air supply lines 34. The aeration promotes proliferation of aerobic thermophilic digestion bacteria. The organic wastes slurry is treated with a thermophilic fermentation. Phototrophic bacteria are added (English abstract) so as to convert the organic waste slurry. Per claim 4, “condensed water” is recycled from the purification step to a prior deodorization step.

The recitation in claim 1, “to produce a liquid fertilizer” is a statement of mere intended use. It does not require that the resulting processed liquid be applied to soil used for raising crops or the like.

JP 01-1355397 appears to fail to describe or suggest operating in the

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thermophilic temperature range.

Respectfully,

CHESTER T. BARRY
PRIMARY EXAMINER

571-272-1152

A handwritten signature in black ink, appearing to read 'C. Barry', with a long, sweeping horizontal line extending to the right.